

CLAIMS

What is claimed is:

- 1 1. An information handling system comprising:
2 a server, said sever having one or more RAID systems, said RAID systems
3 capable of implementing two or more cache policies;
4 a network operative with said server, said network connecting one or more clients
5 to said server, said clients constructed and arranged to communicate with said server thereby
6 placing a load on said server; and
7 a load monitor operative with said one or more RAID systems, said load monitor
8 constructed and arranged to monitor said load, said load monitor further constructed and
9 arranged to select one or more cache policies of said one or more RAID systems that optimize a
10 performance characteristic of said information handling system;
11 wherein said load manager monitors said load and implements a cache policy that
12 optimizes a characteristic of said information handling system.
- 1 2. The information handling system according to claim 1, wherein said load monitor
2 employs a template to select one or more cache policies.
- 1 3. The information handling system according to claim 1, wherein said load monitor
2 employs an algorithm to select said one or more cache policies.
- 1 4. The information handling system according to claim 1, wherein said load monitor
2 employs a template and an algorithm to select said one or more cache policies.

1 5. The information handling system according to claim 1, wherein said RAID
2 system has a read cache.

1 6. The information handling system according to claim 5, wherein said read cache
2 has a no-ahead policy.

1 7. The information handling system according to claim 5, wherein said read cache
2 has an adaptive policy.

1 8. The information handling system according to claim 5, wherein said read cache
2 has a read-ahead policy.

1 9. The information handling system according to claim 1, wherein said RAID
2 system has a write cache.

1 10. The information handling system according to claim 9, wherein said write cache
2 has back policy.

1 11. The information handling system according to claim 9, wherein said write cache
2 has through policy.

1 12. The information handling system according to claim 1, wherein said RAID
2 system has an I/O.

1 13. The information handling system according to claim 12, wherein said I/O has a
2 cached policy.

1 14. The information handling system according to claim 12, wherein said I/O has a
2 direct policy.

1 15. The information handling system according to claim 1, wherein one of said cache
2 policies is a no-ahead policy.

1 16. The information handling system according to claim 1, wherein one of said cache
2 policies is an adaptive policy.

1 17. The information handling system according to claim 1, wherein one of said cache
2 policies is a read-ahead policy.

1 18. The information handling system according to claim 1, wherein one of said cache
2 policies is back policy.

1 19. The information handling system according to claim 1, wherein one of said cache
2 policy is a through policy.

1 20. The information handling system according to claim 1, wherein said cache policy
2 is a cached policy.

1 21. The information handling system according to claim 1, wherein said load monitor
2 is a load balancer.

1 22. The information handling system according to claim 1, wherein said load monitor
2 is a router.

1 23. The information handling system according to claim 1, wherein said load monitor
2 is a server.

1 24. The information handling system according to claim 1, wherein said load monitor
2 is a cluster master.

1 25. An information handling system comprising:
2 at least one server, said sever having one or more RAID systems, said RAID
3 systems capable of implementing two or more cache policies;
4 a network operative with said server, said network connecting one or more clients
5 to said server, said clients constructed and arranged to communicate with said server thereby
6 placing a load on said server;
7 a load balancer, said load balancer constructed and arranged to allocate said load
8 among said one or more servers; and
9 a load monitor operative on said load balancer, said load monitor constructed and
10 arranged to monitor said load, said load monitor further constructed and arranged to select a
11 cache policy of said one or more RAID systems on said one or more servers that optimize a
12 performance characteristic of said information handling system;
13 wherein said load manager monitors said load and implements a cache policy that
14 optimizes a characteristic of said information handling system.

1 26. The information handling system according to claim 25, wherein said load
2 monitor is a load balancer.

1 27. The information handling system according to claim 25, wherein said load
2 monitor is a router.

1 28. The information handling system according to claim 25, wherein said load
2 monitor is a server.

1 29. The information handling system according to claim 25, wherein said load
2 monitor is a cluster master.

1 30. A method for changing cache policy for a RAID system on an information
2 handling system comprising:

- 3 a) reading a set of templates;
- 4 b) determining the load of the network;
- 5 c) indexing said templates using said load to determine a cache setting; and
- 6 d) applying said cache settings to said RAID system.

1 31. The method according to claim 30, further comprising:
2 e) invoking a delay.

1 32. The method according to claim 30, wherein said steps a) through d) are performed
2 continuously on said information handling system.

1 33. The method according to claim 30, wherein said steps a) through d) are performed
2 continuously in real-time on said information handling system.

1 34. The method according to claim 30, wherein said steps a) through d) are performed
2 continuously in near-real-time on said information handling system.

1 35. The method according to claim 30, wherein said step of determining employs a
2 template to select said cache setting.

1 36. The method according to claim 30, wherein said step of determining employs an
2 algorithm to select said cache setting.

1 37. The method according to claim 30, wherein said step of determining employs a
2 template and an algorithm to select said cache setting.

1 38. The method according to claim 30, wherein said cache setting is made up of two
2 or more policies.

1 39. The method according to claim 38, wherein said RAID system has a read cache.

1 40. The method according to claim 39, wherein said read cache has a no-ahead
2 policy.

1 41. The method according to claim 39, wherein said read cache has an adaptive
2 policy.

1 42. The method according to claim 39, wherein said read cache has a read-ahead
2 policy.

1 43. The method according to claim 38, wherein said RAID system has a write cache.

1 44. The method according to claim 43, wherein said write cache has back policy.

1 45. The method according to claim 43, wherein said write cache has through policy.

- 1 46. The method according to claim 38, wherein said RAID system has an I/O.
- 1 47. The method according to claim 46, wherein said I/O has a cached policy.
- 1 48. The method according to claim 46, wherein said I/O has a direct policy.
- 1 49. The method according to claim 30, wherein said cache setting includes a no-ahead
2 policy.
- 1 50. The method according to claim 30, wherein said cache setting includes an
2 adaptive policy.
- 1 51. The method according to claim 30, wherein said cache setting includes a read-
2 ahead policy.
- 1 52. The method according to claim 30, wherein said cache setting includes a back
2 policy.
- 1 53. The method according to claim 30, wherein said cache setting includes a through
2 policy.
- 1 54. The method according to claim 30, wherein said cache setting includes a cached
2 policy.
- 1 55. The method according to claim 30, wherein said load monitor is a load balancer.
- 1 56. The method according to claim 30, wherein said load monitor is a router.
- 1 57. The method according to claim 30, wherein said load monitor is a server.

1 58. The method according to claim 30, wherein said load monitor is a cluster master.

1 59. An information handling system comprising:

2 client means for generating a load;

3 server means for servicing said load, said sever having one or more RAID
4 systems, said RAID systems capable of implementing two or more cache policies;

5 network means operative with said server means and said client means for
6 transmitting said load; and

7 load monitor means for monitoring said load, said load monitor means operative
8 with said one or more RAID systems, said load monitor constructed and arranged to select a
9 cache policy of said one or more RAID systems that optimize a performance characteristic of
10 said information handling system;

11 wherein said load manager monitors said load and implements a cache policy that
12 optimizes a characteristic of said information handling system.